

NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

INCH-POUND

MIL-PRF-27/180A
7 January 1991
SUPERSEDING
MIL-T-27/180
18 April 1977

PERFORMANCE SPECIFICATION SHEET

TRANSFORMER, POWER, STEP-DOWN, TF4S03FA

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.

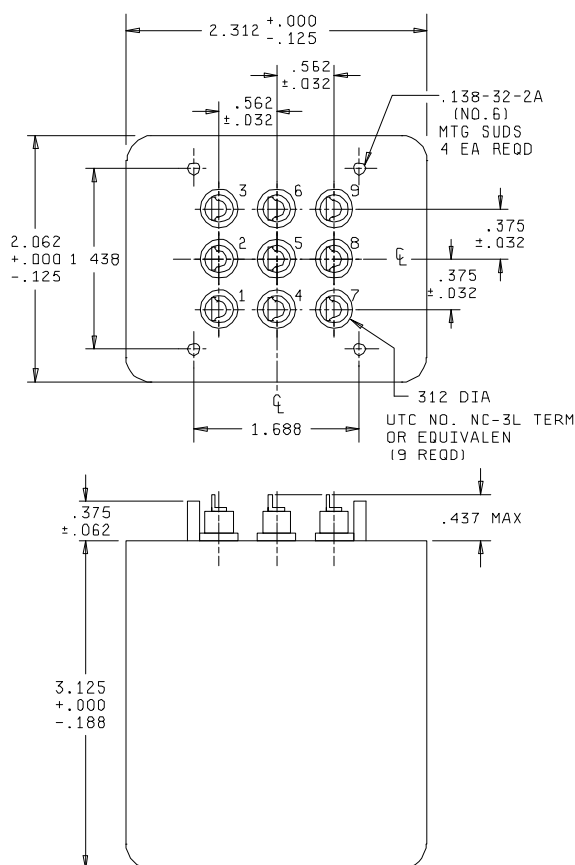
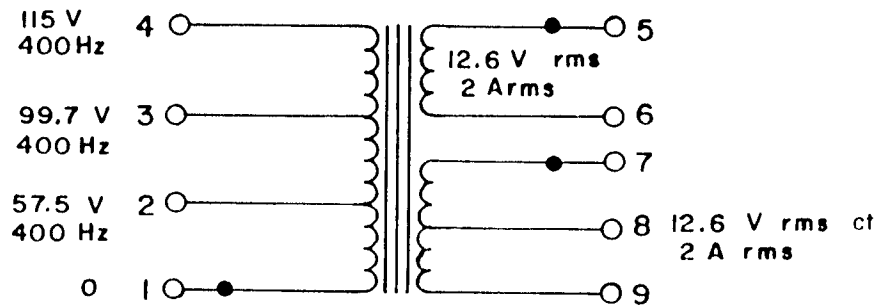


FIGURE 1. Dimensions and configurations.

(A) denotes changes



Working voltage (peak): 535 V

Circuit diagram and marking

Inches	mm
.032	0.81
.062	1.57
.125	3.18
.138	3.51
.188	4.78
.312	7.92
.375	9.52
.437	11.13
.562	14.27
1.438	36.53
1.688	42.88
2.062	52.37
2.312	58.72
3.125	79.38

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Marking shall be on the side of the case.

FIGURE 1. Dimensions and configurations - Continued.

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REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the windings.)

Electrical ratings:

Primary voltage:

(1-2): 57.5 volts rms, 400 Hz.
(1-3): 99.7 volts rms, 400 Hz
(1-4): 115 volts rms, 400 Hz

Volt-ampere rating: 51.

Secondary voltage:

(5-6): 12.6 volts rms.
(7-9): 12.6 volts rms ct.

Secondary current:

(5-6): 2 amperes rms.
(7-9): 2 amperes rms.

DC resistance:

(1-4): 3.5 ohms maximum.
(5-6): 0.112 ohm maximum.
(7-9): 0.102 ohm maximum.

Working voltage (peak): 535 volts.

Design and construction:

Dimensions and configuration: See figure 1.

Duty cycle: Continuous.

Case: Metal.

Material: Steel.

Terminals: Solder type, United Transformer Company part number NC-3L, or equivalent.

Terminal height: 0.437 inch maximum.

Ⓐ Weight: 2.2 pounds maximum.

Altitude: 50,000 feet maximum.

Operating temperature range: -55°C to +130°C.

Shock (specified pulse): MIL-STD-202, method 213, test condition H.

Terminal strength: MIL-STD-202, method 211, test condition A, 5 pounds.

Dielectric withstanding voltage (at sea level): 1500 volts rms.

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Electrical characteristics:

No load: With 115 volts, 400 Hz across (1-4), current in (1-4) shall not exceed 90 milliamperes and the power in (1-4) shall not exceed 5 watts:

Voltage across (5-6): 13.05 volts ± 2 percent.

Voltage across (7-9): 13.05 volts ct ± 2 percent.

Rated load: With 115 volts, 400 Hz across (1-4):

Voltage across (5-6): 12.6 volts ± 2 percent.

Voltage across (7-9): 12.6 volts ct ± 2 percent.

DC resistance:

(1-4): 3.5 ohms maximum.

(5-6): 0.112 ohm maximum.

(7-9): 0.102 ohm maximum.

Polarity: Additive, with terminals (4-5) and (6-7) connected.

Temperature rise: $+40^{\circ}\text{C}$ maximum with 115 volts rms, 400 Hz across (1-4) at an ambient temperature of $+90^{\circ}\text{C}$.

Marking location: See figure 1.

- (A) Part or Identifying Number (PIN): M27/180-01. The term Part or Identifying Number (PIN) is equivalent to the term part number which was previously used in this specification.

CONCLUDING MATERIAL

Custodians:

Army - ER

Navy - EC

Air Force - 85

Review activities:

Army - MI

Navy - OS, SH

Air Force - 17, 99

DLA - ES

User activities:

Army - AR, ME

Navy - AS, MC

Air Force - 19

Preparing activity:

Army - ER

Agent:

DLA - ES

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